

STRC NEWSLETTER



Science & Technology Resource Centre Gondwana University, Gadchiroli

A centre of excellence for sustainable value creation, conceived and funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Govt. of Maharashtra.

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Pathways to Livelihoods in
Gadchiroli



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From the CPO's Desk



Indigenous Knowledge Systems as Pathways to Livelihoods in Gadchiroli

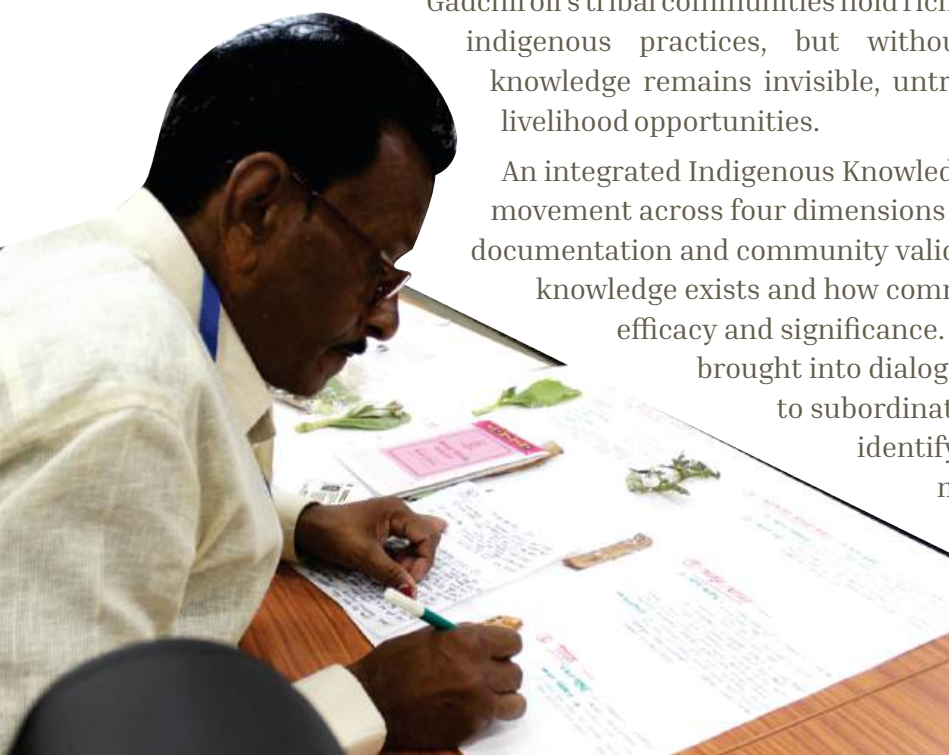
Indigenous Knowledge Systems represent far more than historical artifacts or cultural curiosities. They embody living, tested methodologies for ecological stewardship, health promotion, and resource management refined across generations in intimate relationship with specific landscapes. Yet across India's institutional landscape, this knowledge remains systematically invisible, unaccredited, unsanctioned, and economically invisible. A Traditional Healer with forty years of healing practice holds no formal credential. A tribal artisan carrying centuries of craft skill cannot access institutional support. A community managing forest resources sustainably generates no documented livelihood pathway. This exclusion is not accidental. It reflects a fundamental institutional failure, the absence of systems designed to validate, formalize, and market indigenous knowledge in ways that preserve its integrity while opening pathways to dignified livelihoods.



Shri Swapnil Girade
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Gadchiroli's tribal communities hold rich forest knowledge and sophisticated indigenous practices, but without institutional recognition this knowledge remains invisible, untransmitted, and excluded from fair livelihood opportunities.

An integrated Indigenous Knowledge Systems pipeline requires movement across four dimensions simultaneously. First, rigorous documentation and community validation must establish what knowledge exists and how communities themselves recognize its efficacy and significance. Second, this knowledge must be brought into dialogue with scientific frameworks, not to subordinate tradition to science, but to identify complementarities and build mutual credibility. Third, structured training pathways must formalize transmission so that knowledge does not vanish with its current practitioners



but becomes documentable and learn ready material. Fourth, and most critically, these credentials must connect directly to market linkages and livelihood enterprises. A certificate without income is merely symbolic. Livelihood without institutional backing remains precarious and invisible.

The emerging model in Gadchiroli suggests that IKS credentialing must be

deeply integrated with value chain development. When a traditional healer receives formal certification through university-recognized training, that credential should immediately open access to institutional support, whether through community health promotion centres, AYUSH-aligned service delivery networks, or research partnerships. When an artisan completes training in traditional craft techniques, certification should connect directly to market channels with institutional backing. When a community demonstrates sophisticated forest management, that knowledge should translate into sustainable income through NTFP commercialization or eco-tourism enterprises. Without these livelihood linkages, IKS initiatives remain what they have always been, culturally significant but economically marginal.

The transformation now started becoming possible in Gadchiroli through university interventions. Indigenous Knowledge Systems can move from institutional invisibility to formal credentialing to livelihood reality, but only if universities deliberately build the bridging infrastructure. This requires curriculum integration so that students learn knowledge systems in their local context. It requires validation methodologies that honour both community recognition and scientific rigor. It requires market enterprises, whether social ventures or government-linked schemes, designed explicitly to commercialize IKS-based products and services. It requires that credentialing pathways be designed backward from livelihood reality rather than forward from academic convenience.

Gondwana University's STRC Vaidya Chikitsalay, stands as testimony, demonstrating precisely this bridging logic in practice. It brought traditional healers long operating outside institutional recognition onto a university platform, giving their knowledge a formal address and a legitimate space of practice.

Gadchiroli does not need external knowledge. It needs the institutional infrastructure through which its own knowledge gains recognition, transmission, and livelihood dignity. When tribal forest wisdom becomes a university credential, and that credential becomes genuine income for knowledge practitioners and their communities, the region will have achieved something far more significant than cultural preservation. It will have rebuilt the relationship between knowledge and livelihood that industrialization fractured, creating pathways through which communities remain both custodians of their wisdom and beneficiaries of its economic value.



Article

Forest as Curriculum, Community as Teacher: Reimagining the Facilitator's Role in Tribal Education



Ms. Zeenat Sayyad
Field Coordinator, STRC

India's Scheduled Tribe communities record literacy rates nearly 14 percentage points below the national average, with school dropout rates among the highest across all social categories (Census 2011). Behind this statistic lies a curriculum routinely designed around an environmental and cultural reality that is not their own. In Gadchiroli, where tribal communities constitute approximately 38.6% of the district population and forests cover over 69% of the geographical area, this contradiction is acute. Children arrive at school carrying extraordinary knowledge; the seasonal behaviour of forests, the medicinal properties of local plants, the ecological logic of sustainable harvesting. Conventional schooling, rather than

building on this foundation, routinely ignores it.

The National Education Policy 2020 formally endorses the correction. It calls for integrating local and indigenous knowledge into curricula, mandating experiential learning approaches that connect academic content to students' immediate ecological and social environments. For tribal districts like Gadchiroli, this is not aspirational; it is an urgent corrective.

STRC's EES Programme: A Deliberate Institutional Response

STRC developed the Environmental Education for Tribal School Children (EES) Programme as a deliberate institutional response. This module-based "Beyond the Classroom" initiative positions nature as curriculum and community knowledge as pedagogical resource. Having completed its first phase successfully, STRC is now implementing the second phase, engaging more than 650 students across 15 tribal schools in Gadchiroli district.

The programme is grounded in a straightforward premise:

Tribal children are not knowledge-deficient; they are knowledge-rich in ways formal schooling has systematically failed to recognise. The EES framework does not supplement formal education with occasional outdoor activities. It reconstitutes



the learning environment itself, treating forests, rivers, biodiversity, and traditional community practices as primary sites of scientific inquiry.

Voices from the ground

The transformation is visible on the ground.



Children who were once passive learners have become active explorers of their environment. They now observe nature more carefully, ask thoughtful questions, participate enthusiastically in discussions, and confidently share their own findings.



- Shri Khobragade, Teacher, Ashram Shala, Girola



The programme has helped me understand nature in a new way and inspired me to take responsibility for protecting it.



- Ms. Komal, Ashram Shala, Girola



The Teacher as Facilitator: A Fundamental Role Shift

At the centre of this pedagogical shift is a redefined role for the teacher. Rather than serving as the sole authority and transmitter of information, the teacher becomes a facilitator who designs conditions for discovery, nurtures curiosity, and helps students build conceptual bridges between inherited wisdom and formal science. This demands far greater skill than delivering a standardised lecture.

What is significant here is not merely enthusiasm but epistemological repositioning. These students are no longer passive recipients of externally produced knowledge; they are contributors to it. When 650 students across 15 schools in one of India's most forested and underserved districts begin to experience learning as rooted in their own environment and validated by their own heritage, the implications extend well beyond test scores. They include ecological stewardship, cultural continuity, and the long-term resilience of forest-dependent communities.

What STRC has demonstrated is that when the teacher is repositioned as a facilitator, when forests become classrooms, and when indigenous knowledge becomes curriculum, education stops being something done to tribal children and begins being something built with and for them. That is not merely a pedagogical refinement. It is a restoration of educational justice.

Cover Story

National Recognition for STRC as a **Centre of Excellence** by Handicrafts and Carpet Sector Skill Council, New Delhi



New Delhi | May 5, 2026



In a significant boost to skill development and the preservation of traditional Indian handicrafts, the Science and Technology Resource Centre (STRC) of Gondwana University, Gadchiroli, Maharashtra, has been officially recognized as a Centre of Excellence (CoE) by the Handicrafts and Carpet Sector Skill Council (HCSSC), New Delhi. A Memorandum of Understanding (MoU) formalizing this strategic collaboration was signed on May 5th at the HCSSC headquarters in New Delhi.

The partnership aims to strengthen skill development initiatives for artisans and youth in the Gadchiroli region, promote and preserve indigenous tribal handicrafts, and create sustainable livelihood opportunities. The collaboration will focus on the following key areas:

- Training of Trainers (ToT) Programs: Enhancing the capabilities of trainers to deliver high-quality handicraft education.
- Handicraft-Based and Vocational Training Programs: Providing hands-on training in various traditional handicrafts.
- School Education Programs: Integrating traditional arts and crafts into school education.
- Promotion and Skill Upgradation: Focusing on existing art forms such as bamboo crafts and Gond painting.

- **Revival of Endangered Crafts:** Efforts will be undertaken to revive unique traditional crafts such as Dokra Craft.
- **Establishment of a Skill Hub:** A dedicated Skill Hub will be established in Gadchiroli to strengthen industry linkages, product development, and market access.

The MoU signing ceremony was attended by distinguished dignitaries including Shri Krishan Kumar, Chief Executive Officer, HCSSC, New Delhi; Dr. Prashant Bokare, Hon'ble Vice Chancellor, Gondwana University, Gadchiroli; and Shri Swapnil Girade, Chief Program Officer and Head, STRC, Gondwana University, Gadchiroli.

The recognition of STRC as a Centre for Excellence is a result of the visionary leadership and guidance of Dr. C. D. Mayee, Chairman, Governing Body, STRC, Gondwana University, and Dr. Prashant Bokare, Hon'ble Vice Chancellor, Gondwana University, Gadchiroli. The initiative also received valuable support from Dr. Shriram Kawale, Pro-Vice Chancellor, Gondwana University; Dr. Anil Hirekhan, Registrar, Gondwana University; and Smt. Pragati Gokhale, Advisor and Office In-Charge, RGSTC, Nagpur, Govt of Maharashtra. Special efforts towards this milestone of the Centre were undertaken by the STRC team, particularly Shri Swapnil Girade, Chief Program Officer and Head, STRC, Shri Gandharv Pilare, Scientific Officer, STRC, and Shri Vinod Varthya, Junior Scientific Officer, STRC.

The newly recognized Centre of Excellence is poised to become a key hub for NSQF-aligned training, trainer development, design innovation, entrepreneurship promotion, and certification in the handicrafts sector. This initiative is expected to significantly benefit tribal artisans, women self-help groups, and youth in Gadchiroli district, thereby contributing to regional economic empowerment and cultural preservation.



What's Making News

STRC Facilitates Assessment of Bio-resource for Bamboo Biochar Project



Mendha (Lekha), Dhanora / May 27, 2026

Following the strategic deliberations held on 6 March 2026 under the guidance of Padma Vibhushan Dr. Anil Kakodkar, Chairman, Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, a significant step was taken towards realizing a circular bamboo economy in Gadchiroli. A delegation from the Institute of Chemical Technology (ICT), Mumbai, led by Padma Bhushan Prof. J. B. Joshi, visited the district on 27 May 2026 to conduct a preliminary feasibility assessment for a proposed Bamboo Biochar Production Project in Dhanora Block. The initiative seeks to transform surplus bamboo biomass and waste into value-added products such as biochar, creating new opportunities for sustainable livelihoods, resource efficiency, and green economic growth.

The delegation visited Mendha (Lekha), Taluka Dhanora, a potential site identified for the proposed project, to assess bamboo biomass availability and evaluate the region's suitability for such an intervention. Interactions with Gram Sabha representatives and local stakeholders, including renowned tribal rights leader Dr. Devaji Tofa, provided valuable insights into community participation, bamboo resource management, and local development aspirations. The assessment is expected to generate critical inputs for evaluating the project's technical, social, and operational feasibility.

During the visit, Prof. J. B. Joshi also met with Hon'ble Vice Chancellor Dr. Prashant Bokare at Gondwana University to discuss the project's transformative potential and opportunities for institutional collaboration. The discussions highlighted how science- and technology-driven bamboo utilization could contribute to sustainable development, rural entrepreneurship, and a stronger bio-based economy in the region.



STRC emerged as a nodal agency in advancing this initiative. Having been recognized during earlier deliberations as a potential nodal resource centre, STRC facilitated the field visit while leveraging its decade-long experience in bamboo-based development in Gadchiroli. Through resource mapping, socio-economic assessments, stakeholder engagement, and field-level coordination, STRC is expected to play key role in shaping the project's future direction. The visit marks an important milestone in exploring how Gadchiroli's abundant bamboo resources can be leveraged to drive sustainable livelihoods, green technology, and inclusive regional development.

Gondwana Craft's Bamboo Bouquets Finds Recognition at National Water Conference

 Nagpur / May 17-18, 2026

STRC's Gondwana Craft initiative presented 100 handcrafted bamboo bouquets at the Silver Jubilee National Water Conservation Conference in Nagpur, organized by Purti Sinchan Samruddhi Kalyankari Sanstha. Crafted by local artisans using eco-friendly bamboo material, the bouquets were appreciated by distinguished guests including Union Minister Shri Nitin Gadkari and renowned actors Nana Patekar and Makarand Anaspure. The gesture reflected the potential of Gadchiroli's traditional craftsmanship to create meaningful, value-added products.

Gondwana Craft continues its work of preserving and promoting the region's unique art forms while generating sustainable income for artisans. These bamboo bouquets, simple in form and rooted in local skill and resource, show how traditional craftsmanship can create both cultural value and livelihood opportunity for the communities that practice it.



The National Water Conservation Conference, organized by Purti Sinchan Samruddhi Kalyankari Sanstha, brought together policymakers, experts, farmers, and social organizations to discuss water conservation and sustainable rural development. The event was graced by Shri Nitin Gadkari, Hon'ble Minister of Road Transport and Highways, Government of India, and renowned actors and Naam Foundation co-founders Nana Patekar and Makarand Anaspure.



STRC Recognizes Roy Fish Farm at Mallampali, Aheri as Potential Training Hub for Aquaculture Farmers



Mallampali, Aheri / May 20, 2026

As part of its continued efforts to strengthen livelihood opportunities through sustainable aquaculture, STRC conducted a field visit to the 'Roy Fish Farm' a Fish Seed Producing Unit at Mallampali (Aheri). During the visit, STRC identified the growing potential of local fish seed production as an emerging rural enterprise capable of generating employment and strengthening the region's aquaculture ecosystem. The interaction with fish seed producer Shri Nimesh Roy revealed that despite having practical experience and suitable pond infrastructure, farmers in remote areas continue to face major challenges such as irregular water management, fish health issues, limited scientific guidance, and lack of access to modern hatchery practices. The visit also highlighted gaps in technical training, seed management systems, and market linkages, which directly affect productivity and local farmer income.

Recognizing these challenges, STRC emphasized the need for a collaborative model that combines local farmer knowledge with scientific aquaculture practices and institutional support. The Centre proposed future collaboration with Roy Fish Farm to develop it as a localized demonstration and training hub for fish farmers, rural youth, and aspiring aquapreneurs from Gadchiroli. STRC plans to facilitate technical guidance on water quality monitoring, and disease management while also creating opportunities for exposure visits and farmer-to-farmer learning.

Through this initiative, STRC aims to build a stronger network of fish farmers, improve local fish seed availability, and encourage sustainable aquaculture practices that can enhance income generation and livelihood resilience across the region.



Leaf Plates, Livelihoods, Forest Resources: STRC's Sustained Work in Jambhali



Jambhali, Dhanora / May 19, 2026

For over a year, STRC has worked with a Self-Help Group in Jambhali village, Dhanora block, to build a viable leaf plate making enterprise. In partnership with the National Innovation Foundation (NIF), which provided the leaf plate machine, STRC facilitated every step, from identifying the right community group and conducting hands-on training to supporting enterprise operations and

market connections. What makes this work significant is not the technology alone, but STRC's consistent field presence and commitment to embedding solutions within the community's own strengths and resources.

Leafplate making is a natural fit for tribal livelihoods: the raw material is locally available, production is learnable, and market demand is growing as awareness of plastic alternatives spreads. By enabling forest-based value addition, STRC continues its broader effort to create sustainable income pathways for Gadchiroli's tribal communities, rooted not in external interventions, but in what communities already know and have.



STRC Continues to Strengthen Rural Livelihoods at Maldugi through Bamboo Product Development



Maldugi, Kurkheda / May 2, 2026

In order to fulfill the steadily rising demand for bamboo products, Science and Technology Resource Centre (STRC) in Maldugi continues its ongoing efforts toward livelihood improvement and community empowerment by expanding its hands-on bamboo training program. Local artisans learned how to make locally accessible bamboo into handcrafted products with enhanced value and increasing market demand through hands-on skill training. Nearly 400 bamboo lotus flowers were successfully manufactured by this training group in Maldugi, showcasing increased production capacity, better craftsmanship, and rising community members' confidence in their ability to start their own enterprise. With the goal to preserve and support Gadchiroli's bamboo artisans, STRC will keep empowering and supporting groups like Maldugi.



Our Latest Publications

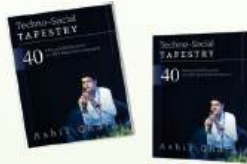
Monthly Newsletters



**STRC
Annual
Report
2024-25**



Techno-Social Tapestry
By Shri Ashis Gharai,
Former CPO & Head, STRC



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- Contribution -

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Science & Technology Resource Centre Gondwana University, Gadchiroli

Conceived and funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Government of Maharashtra, Science & Technology Resource Centre (STRC) is an autonomous institute established in concurrence with Gondwana University, Gadchiroli in 2014. As a centre of excellence for sustainable value creation, STRC is leveraging local resources, relevant knowledge and appropriate technologies for human capacity development. STRC acts as a catalyst to science and technology based development of the under-served tribal communities of the Gadchiroli region and as a bridge between knowledge activities of the University and enhanced livelihoods in the neighborhood.



*'Science & Technology
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